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Industrial Horizons



Vol. 3—No. 7.

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News Publication — Montana State Planning Board

New Dams On Montana Rivers

Two important events in the development of Montana's water resources occurred in July:

1. President Eisenhower on July 15, signed the Yellowtail Dam Bill, calling for payment of \$2.5 million to the Crow Indian Tribe for 5,678 acres of their land for the site of the multipurpose dam. Yellowtail is to be built 35 miles southeast of Hardin on the Big Horn River. It is part of the Missouri River Basin project authorized by Congress in 1944. Designed to provide water and power for 44,000 acres of irrigable land near Hardin, the dam will also be built to generate 200,000 kilowatts of hydroelectric power, and for flood control, silt retention, conservation of fish and wildlife, and recreational facilities. Construction will require an estimated peak labor force of 1,500 men and six years of work which will benefit the Billings-Hardin area. Construction will begin when funds are appropriated. Passage and signing of the bill culminates 20 years of effort by leaders of eastern Montana.

2. Official ceremonies opening Montana Power Company's Cochrane Dam on the Missouri River near Great Falls were conducted July 29. The 60,000-kilowatt, concrete-gravity hydro-electric plant will supply power to the entire Montana Power Company system. Visitors are welcome at the new dam. (See INDUSTRIAL HORIZONS, Sept., 1957).

MANUFACTURERS' DIRECTORY NOW AVAILABLE

Copies of the new "Montana Directory of Manufacturers" are now available from the State Planning Board in Helena.

Published as a cooperative venture between the State Planning Board and the Engineering Experiment Station of Montana State College, the 79-page booklet provides detailed information about over 350 Montana manufacturers, as well as listing 700 others by product classification.

For instance, under the classification "Professional, Scientific, and Controlling Instruments," the Directory lists eight manufacturers—one in Billings, two in Bozeman, one in Butte, two in Helena, and two in Missoula, along with the products they make and the machinery they have.

The Directory is published as Engineering Experiment Station Bulletin No. 24, and was compiled under the direction of Howard Huffman of the Industrial Engineering Department at MSC. The Directory sells for \$1.50, but will be sent free of charge to bona fide industrialists wishing to establish a plant in Montana and to industrial development agencies.

The Montana Chamber of Commerce three years ago published an "Industrial Survey and Directory of Manufacturers of Montana." MSC and SPB this year agreed to assume responsibility for preparation of a revised edition.

Other states have found this type of book helpful in industrial development work.

SUBCONTRACT POSSIBILITIES TO BE SHOWN AT EXHIBIT

Montanans will have an excellent opportunity to see what business and government are buying at the Midwest Business Opportunities Exhibit in Minneapolis, Minn., October 15-17.

Sponsored by the State Planning Board and state industrial development agencies in Iowa, Minnesota, North and South Dakota, and Wisconsin, the exhibit will be a major event in the efforts of this region to obtain more prime contracts and subcontracts from both the federal government and private industry.

The exhibit will have a two-fold objective:

1. To portray the production, service, supply, or research and development capabilities of small firms looking for subcontract opportunities.

2. To display items needed by major corporations which offer subcontract opportunities.

Prime Contractors' Exhibit

This will not be an exhibit of end items or complete products for sale, such as radios, refrigerators, furniture, or similar marketable products. Rather, it will be basically an exhibit of items, component parts, and supplies required by commercial industry, the government, and prime contractors. The purpose of the exhibit is to bring potential prime and subcontractors together to exchange opportunities to their mutual benefit.

Exhibiting will be several categories of interests:

1. Major corporations who are looking for subcontractors. These include General Electric, General Dynamics, Boeing, and many others. They will be showing products they need manufactured.

2. Governmental agencies, such as the Department of Defense, which will be showing the products they purchase.

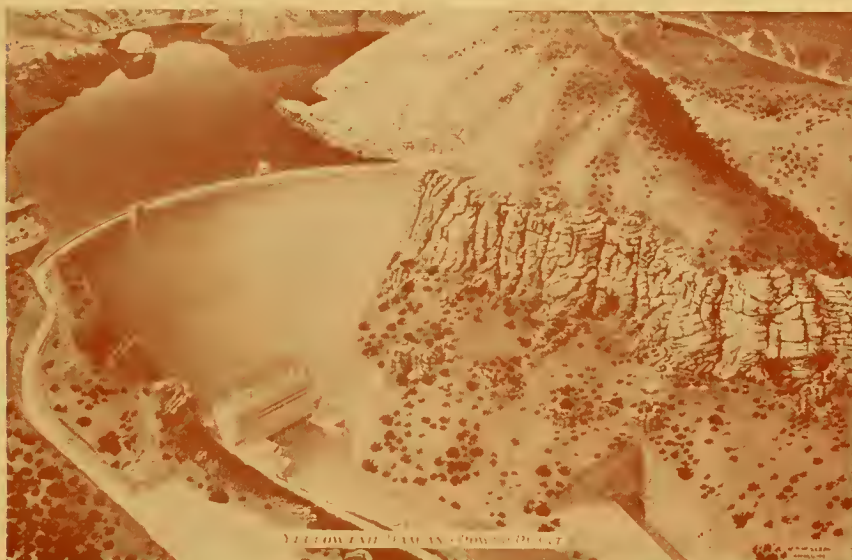
3. Community industrial development groups, such as Chambers of Commerce, from all over the six-state area. These people will be showing the leading manufacturers the advantages of new site locations in their communities.

Past Exhibits Successful

Two such exhibits have been held this year—in Hartford, Conn., and Huntington, W. Va. Both were successful in bringing contractors and subcontractors together, and the level of subcontracting has gone up in both areas.

Cooperating with the State Planning Board in preparing exhibits and publicizing the exhibit will be various local Chambers of Commerce, the Montana Chamber of Commerce, and several trade organizations.

More details will be given in the September INDUSTRIAL HORIZONS and in the newspapers.



(BUREAU OF RECLAMATION PHOTO)

Highways Have Impact On Communities

By George Sime—Montana Highway Department

The rapid increase in the number of vehicles on our streets and highways has brought many a new problem to residents of our cities and to highway engineers. A look into the not too distant future would show that these problems will become much more acute if no positive action is taken in attempting to alleviate our ever-increasing traffic and related situations. We have suddenly become aware that our highways, streets and parking areas were planned for far less numbers of vehicles than we have in Montana at present.

The Interstate highway is one positive step to provide a modern, safe road to serve both through and local traffic, and although this will alleviate much of the congestion on some of our highways, it will not be completed for a decade. Its planned access, wider lanes and shoulders, longer sight distance, will bring welcome relief to some of our congested roads, and the Highway Department is endeavoring to construct the section on the basis of need for new facilities.

The construction of the Interstate highway has posed many new problems for the Montana Highway Department, and they have found that much help can be gained in working closely with county and city officials. Some of these problems are: bypasses; changing traffic patterns; re-location of residents.

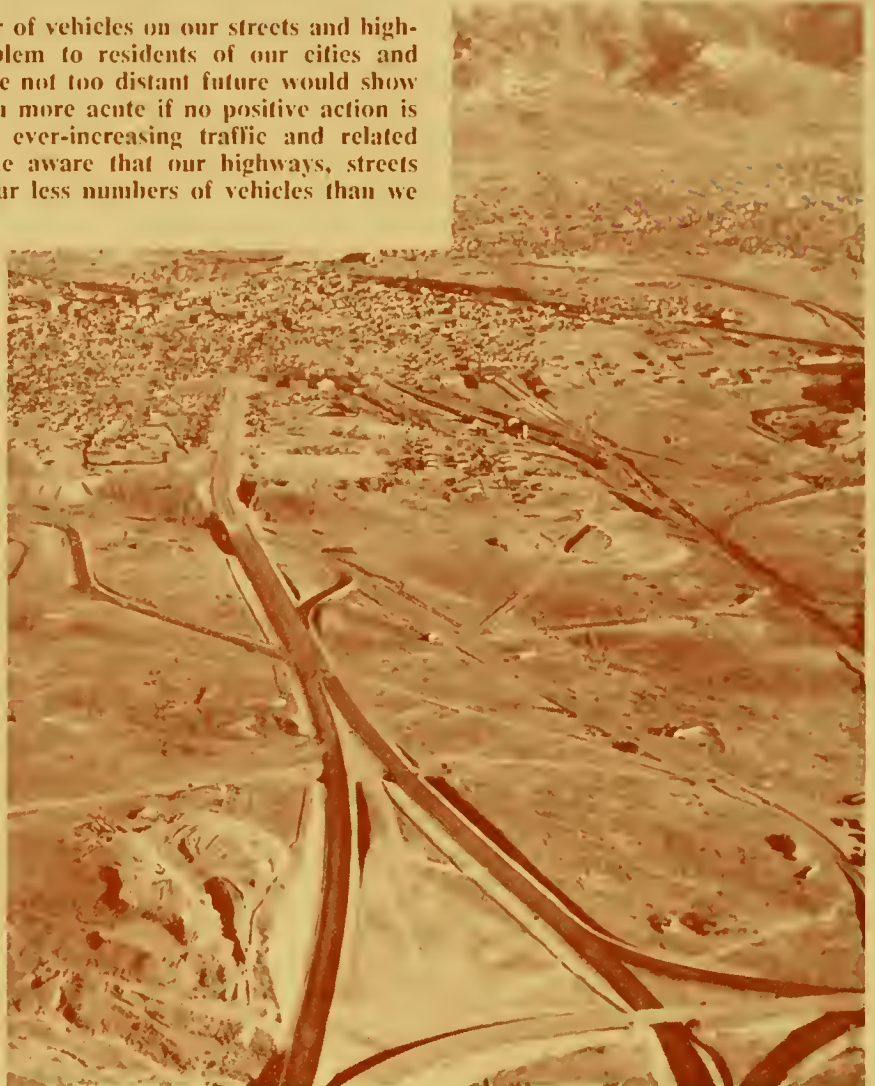
Bypasses. The new highway in most instances will by-pass most of our Montana communities. This is a frightening aspect to many of the businesses dependent upon the traveling public. However, no businesses whatsoever will be allowed on the highway so that no one is being favored. If adequate interchanges are provided and the congestion of through traffic is removed from the present business areas, business should continue. In other states, communities with by-passes have not been harmed.

Changing Traffic Patterns. As the interchanges are built, traffic will gradually tend to shift either toward or from these interchanges, and in many cities and towns will completely change the present traffic flow. This will tend to cause either a sudden development in an area or a cessation of traffic in the area. It would seem wise for communities to plan for such eventualities and endeavor to plan for the changes. Perhaps zoning in these areas would serve to control economic blight or to assure a more healthy and orderly growth.

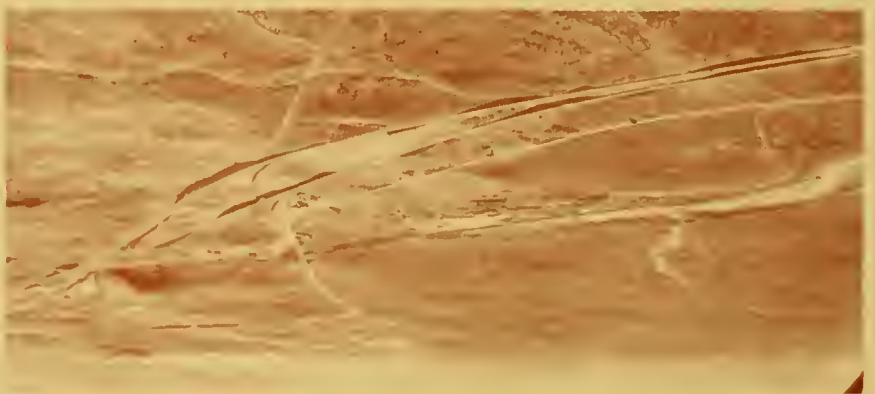
Re-location. In communities where the new location of roads does displace some residents, it would seem advisable for city officials to open up new areas for such people. Such a move could possibly prevent their leaving the community. Advance information to communities by the Highway Department is available and the highway officials will cooperate with responsible officials in help to alleviate the strains of displacement.

The Highway Department will cooperate with communities with these problems and will furnish technical assistance, based on known facts, in planning for these eventualities.

(Continued on page 3)



An example of a new highway built to Interstate standards, the Iron Street arterial into the center of Butte, looking east. Note the interchanges, and divided lanes. Most of Montana's larger communities will soon have highways of this caliber under the new Interstate program. (Highway Department Photo)



Nissler Interchange west of Butte, where U. S. 91 leaves U. S. 10S. This is the site of a very extensive cloverleaf. (Highway Department Photo)

MONTANA STATE PLANNING BOARD

Sam W. Mitchell Building

Helena, Montana

AVAILABLE PLANT SUMMARY

FALL, 1958

BUILDINGS AVAILABLE FOR INDUSTRIAL USE IN MONTANA COMMUNITIES

Following are the results of the First Quarterly Building Survey conducted by the State Planning Board.

Results were obtained from questionnaires completed by Chambers of Commerce and realtors throughout the state. In addition, E. V. Darlington, the State Planning Board's Industrial Engineer, has been conducting a personal survey of available buildings in Montana.

This "Summary" will be helpful in bringing new industries to Montana. When an industrialist inquires about available buildings, SPB can show him buildings which are suitable for his operations.

CITY	Bldg. No.	Type of Construction	No. of Floors*	Type of Floor	Base-ment	Total Area* (Approximate)
BELT	1	Brick	2	?	Yes	15,000 sq. ft.
BILLINGS	1	?	1	?	No	90,000
	2	Steel	1	Concrete	No	21,000
BUTTE	1	Brick	4	Wood	Yes	27,000
	2	Brick	4	Wood	Yes	19,500
	3	Brick	4	Wood	Yes	16,000
	4	Brick	2	Wood	Yes	12,800
DIXON	1	?	1	Wood	?	3,500
GLENDIVE	1	Frame	1	Concrete	No	15,500
GREAT FALLS	1	Brick	4	?	?	48,000
	2	Brick	2	?	Yes	34,000
	3	Brick	3	?	Yes	9,000
	4	Concrete Bl.	1	Concrete	No	3,000
HELENA	1	Brick	3	Wood	Yes	36,500
	2	Brick (Unfinished)	3	Concrete	Yes	25,000
	3	Brick	5	Concrete	Yes	16,500
	4	Concrete (Unfinished)	2	Concrete	Yes	10,000
	5	Brick	2	Wood	No	5,000
KALISPELL	1	Brick	2	Wood	?	6,500
MISSOULA	1	Brick	4	Wood	Yes	42,000
	2	Brick	4	Wood	Yes	41,500
	3	Brick	3	?	?	11,000
	4	Brick	1	Concrete	No	9,000
SHELBY	1	Brick	1	Concrete	No	12,000
	2	Brick	?	Concrete	No	7,500
SIDNEY	1	Concrete Bl.	1	Concrete	No	7,700
	2	Concrete Bl.	1	Concrete	No	7,000
	3	Concrete Bl.	1	Concrete	No	5,000
THOMPSON FALLS	1	Concrete Bl.	2	Wood	Yes	10,000
	2	?	1	?	No	1,800
TROUT CREEK	1	Steel	1	Concrete	No	3,200
WHITEHALL	1	Brick (Unfinished)	2	?	Yes	10,000

*Includes basement (if any)

Contact the State Planning Board for information about any of these buildings.

Parking and Traffic

Parking and the mere increase in the number of vehicles, whether on Interstate, primary, secondary, urban, or other roads, is an ever increasing burden to our traffic planners, and the matter of parking for vehicles is a field in its own right. Even after cars are discarded they must be put somewhere, as is attested to by the increasing size of car 'cemeteries' or wrecking yards. **Certainly, any city planner must take parking into consideration when designing new areas.** An increasing demand for more and better secondary roads will continue to press our county commissioners as the mobility of our rural residents continues to increase. Our new secondary roads will be built to a higher design than previously and, in view of the limited financing available in each financial district of the highway department, more counties are considering bond issues, such as Lewis and Clark County passed, in order to provide modern roads to the rural areas.

Help From Department

The Montana Highway Commission and the staff of the Department is ready at all times to furnish technical assistance and advice to cities and counties to help solve their traffic problems. The traffic engineering section is constantly making studies in order to make recommendations on traffic laws and control, and the planning survey section prepares factual information for use by the engineers in future planning.

If assistance is desired, call or write the Helena office, or any of the five district headquarters located in Missoula, Butte, Great Falls, Glendive or Billings.

Large New Lumber Mill at Pablo

News of a new \$1.5 million lumber mill at Pablo, Montana, has been received from Editor Ray Loman of the "Ronan Pioneer."

Plum Creek Lumber Company of Columbia Falls, now the largest lumber producer in the Flathead area, is constructing the mill to utilize Northern Pacific timber from the Swan Valley and Thompson River tree farms. From these stands, the plant will produce an estimated 1,000 carloads of wood products during its first year of operation (1959). This figure will be raised—perhaps doubled—when additional timber from other sources becomes available.

To serve the site from its Mission branch line (running from Dixon to Polson), the Northern Pacific is furnishing a ¼-mile siding.

Building locations have been planned to permit an efficient, coordinated operation among the various units, which include planer, dry kilns, barker and chipper. The latter two are being installed to make chips for the Waldorf pulp mill in Missoula.

D. C. Dunham is President of Plum Creek, which is named after the company's first location in Minnesota. Plum Creek's Columbia Falls mill was the state's seventh largest in 1956, cutting over 23 million board feet.

FOREST SERVICE REPORTS GREATER USE OF TREE IN MISSOULA AREA MILLS

Major advances in wood utilization by Missoula's forest industries during 1957 are reported in a recently completed U. S. Forest Service survey, according to Regional Forester Charles L. Tebbe.

New processes and new products, coupled with industrial use of sawdust shavings and bark for fuel, have almost eliminated the need for sawmill burners which once consumed much of the volume of each log. It is estimated that in 1958 alone, the equivalent of 70 million board feet of logs will be put to beneficial use rather than burned.

Slabs, edgings, and trimmer ends are going into chips for processing into pulp products and paper. One Missoula mill has completely disconnected its burner and is utilizing planer shavings, sawdust, bark, and the smallest board ends for fuel. Other mills, farther from a market for fuel wood, are burning small quantities of bark and shavings which cannot be utilized for pulp production.

Officials of the Anaconda Lumber Company at Bonner estimate they now are utilizing 95 per cent of the mill waste which was formerly burned.

Pulp Mill's Contribution

A major contribution to the improved utilization picture was installation of the pulp mill owned by Waldorf Paper Products of Montana. The plant near Frenchtown is designed to produce 250 tons of pulp a day. This output requires an annual supply of some 150,000 units of dry wood chips, weighing 2,400 pounds per unit, including a constant stockpile of 40,000 units.

Laboratory trials indicate that mill waste from all local timber species except cedar can be used for pulp. Six Missoula area sawmills are supplying chips to the mill (see *Industrial Horizons*, April, 1958).

Nels H. Sandberg, President of Waldorf of Montana, comments in the report that the firm has plans to increase production within a reasonable length of time to 300 tons a day, and ultimately to at least 400 tons. Sandberg also comments that utilization of wood wastes in regular logging operations may also be near at hand as local supplies of mill waste are absorbed. As an initial experiment in the use of "round" wood (wood from the forest rather than mill waste), 2,000 units of chips from beetle-killed spruce from the Lolo National Forest are being processed.

New Products Developed

While pulp and related chip production is the biggest utilization story of 1957 in Montana's lumber picture, additional new and improved products are being studied.

Intermountain Lumber Co. of Missoula, for example, has made trial runs of a product called "shee board." By gluing heavy paper over the faces of lower quality boards, a strong, smooth finish sheet 2'x8' in dimension is obtained. These panels are used for sheeting and as underlays for roofing and flooring.

During 1957 Rother Lumber Co. amplified its manufacturing process to include construction of laminated wood

beams, thus creating an improved product from short pieces of dimension stock.

Diehl Lumber Co. of Plains has developed a market for selected mill ends, once wasted. They now go to an Idaho concern for manufacture of boxes and toys.

Diamond-Gardner Corp. mill at Superior recently formed a research committee to analyze opportunities for new wood-wood-using processes, according to the survey.

Integration Makes More Jobs

The Forest Service survey summarized Missoula's wood products potential thus:

"We have observed elsewhere that industries which are highly integrated and are manufacturing diversified products have generally been best able to ride out the bad times which periodically hit the lumber market. However, it is interesting that in order for a company to capture the benefits of diversified production, it is not essential that the individual companies be highly integrated.

"If there is integration in the community, that is, a pulp mill, sawmill, veneer plant, laminating plant, fiberboard plant, door factories, and other plants, then the basic resource—the surrounding timber—can be put to its highest and best use. It will furnish more jobs and income per unit volume, and there will generally be less fluctuation and more stability in the over-all economies of the community.

"Cull sawlogs, large limbs, and tops represent tremendous volumes of usable wood fiber, not to mention the very substantial acreage of pulpwood size timber stands tributary to Missoula. These resources, just beginning to be utilized, will someday be making their full contributions to the Missoula area economy."

If you are interested
in subcontracting,
Plan Now
to attend the
Midwest Business
Opportunities
Exhibit,
Minneapolis,
October 15-17, 1958

Senate Freight Rate Hearing Held; Results Inconclusive

That transportation is an important factor in Montana's economy was the conclusion agreed to by all participants in the U. S. Senate Surface Transportation subcommittee hearing on Montana freight rates held in Helena, July 8, 1958.

Conducted by Sen. George Smathers of Florida, chairman of the subcommittee, the hearing was held at the request of Montana's Congressional delegation to investigate whether "class" rates on products moving into or out of Montana are unfairly high compared with rates in other sections of the country.

Class and Commodity Rates

Highly manufactured goods, such as clothing and hardware, usually travel on "class" rates, and often in small quantities. Class rates are the same for all items in the class.

The other type of freight rates is termed "commodity" rates. They are usually rates on bulk commodities which are negotiated directly between the shipper and the railroad. Most of Montana's basic products, such as wheat and lumber, travel on commodity rates, while most of the imported goods sold by Montana retailers and wholesalers travel on class rates.

Proponents and Opponents

Testimony at the hearing followed two paths. Proponents of a general investigation into Montana's class rate structure claimed Montanans are paying higher freight costs proportionately than citizens of North Dakota and other surrounding states on some incoming manufactured goods. This group was represented in most of its testimony by William H. Johnson, manager of the Montana Citizens Freight Rate Association.

Those denying that a general class rate investigation is necessary included the five transcontinental railroads serving Montana, and manufacturers of products shipped out of state. Most of these products travel on commodity rates. The manufacturers (and wholesalers from Billings) claimed a general reduction of class rates would tend to create pressure for an increase in commodity rates. Thus the state's existing economy would be affected. The railroads claimed they would lose money if class rates are lowered.

No conclusions were reached by the Senate subcommittee. However, the testimony presented at the hearing clearly demonstrated several facts:

1. Montana's freight rate structure is extremely complicated. No single solution can be given for our transportation problems.

Application for HHFA City Planning Grant Submitted

The State Planning Board at its August 6 meeting passed a resolution of application to the Housing and Home Finance Agency for a \$22,300 grant-in-aid for city planning projects in Bozeman, Helena, and Missoula.

Under the provisions of the program, HHFA pays half the costs of preparing master plans for local communities, and the program is administered by SPB for Montana cities under 25,000 population.

Bozeman received a grant of \$7,350 in July of 1957 to help finance a master plan. The Bozeman plan is now near completion, and the current project includes a 12-month extension for further study and implementation of the plan, in the amount of \$5,400.

Local Funds Provided

Also included in the application are a \$22,600 master plan for Missoula and a \$18,600 master plan for the future growth of Helena. Local funds to match the federal grant will be supplied by the Bozeman City Commission and the City-County Planning Boards of Helena and Missoula, if the HHFA grant is approved.

This is a valuable program for Montana communities. Since July, 1957, official City-County Planning Boards have been formed in the following nine cities, according to information received by the State Planning Board: Billings, Bozeman, Butte, Columbia Falls, Havre, Helena, Libby, Livingston and Missoula. Each of these Boards will be working on master plans this year, and federal aid will be of great help to those receiving it.

2. However, because of our great distance from markets and sources of supply, total transportation costs tend to be a more important part of the cost of products we buy and sell than they are for other areas of the country.

3. The effect of high class rates on expansion of basic industries in Montana varies for different industries. One small manufacturer of canned goods claimed a high incoming rate allowed his business to grow by keeping out-of-state competition from his market area.

Changing Economy Will Change Rates

One thing is certain. Montana is now in a raw-materials, natural-resource type of economy. This means that the products we ship out are mainly unprocessed or semi-processed raw materials, such as wheat and lumber. As our economy evolves into a more complicated one, where we manufacture more consumer goods, our freight structure will become more complicated. A greater number of items produced in Montana will move on class rates.

LARGE BENTONITE DEPOSIT NEAR GLASGOW DEVELOPED

Three Glasgow businessmen have formed a company to promote a large deposit of bentonite, according to a prospectus received by the State Planning Board.

Robert Hansen, Robert Hurly, and Leslie Hanson have incorporated the Brazil Creek Bentonite Company to develop their deposit located 15 miles west of Glasgow. They believe there may be as much as 26 million tons of mineable bentonite of good quality in the deposit.

Bentonite is a type of clay which expands in contact with water. It is presently utilized for such widely separated purposes as toothpaste, cosmetics, soap, as a filler for paper, as a bonding agent in foundry sand, and as a bonding agent in pelletizing taconite (low-grade iron ore). Most of the production from existing Montana operations is used for oil well drilling mud and as an effective water seal in dams and ditches. Because its uses are so versatile, bentonite sales are increasing rapidly.

Deposit Has High Viscosity

Bentonite quality is determined by ability to expand upon contact with water. One of the most common tests is viscosity as measured in barrels of yield. The highest quality bentonites are used in oil drilling muds, and many drilling mud bentonites now on the market have a viscosity of 80 to 95 barrels. Brazil Creek states in its prospectus that tests have shown a yield in excess of 100 barrels.

Bentonite is a low-cost clay mined by open-pit methods. Raw bentonite is transported to a mill for processing. Sufficient bentonite can usually be mined and stockpiled during the summer to take care of a mill's needs for the entire year. Major items of expense in mill operation are labor, fuel for the dryers, and electricity to operate machinery.

Small Amount Mined in State

The largest known deposits of bentonite are in southeastern Montana and northeastern Wyoming. A large mine and mill are being developed at Colony, Wyoming, to supply bentonite for pelletizing taconite in the Mesabi Iron Range. Bentonite is now being mined on a limited basis near Alzada, Carter County, Montana. A product also used in drilling muds—barite—is mined near Missoula. Nearest bentonite mills are in northern Wyoming.

Development of the Valley County bentonite deposits would mean lower transportation costs for the petroleum industry of northeastern Montana, as well as utilization of another of our many mineral resources.

MONTANA STATE PLANNING BOARD

Sam Mitchell Building

Helena, Montana

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